

**Gustavus Electric Company**

P.O. Box 102 Gustavus Alaska 99826 (907) 697-2299 fax (907) 697-2355

**TO:**

Pat Regan - Regional Engineer  
Office of Energy Projects - FERC  
Division of Dam Safety and Inspection  
Portland Regional Office  
101 Southwest Main Street - Suite 905  
Portland, Oregon 97204

**SUBJECT:**

February 2007 Monthly Report for the Falls Creek Hydro-electric Project  
FERC # P-11659

**DATE SUBMITTED:**

3/16/07

**DISTRIBUTION LIST:**

Project Personnel	Position	Contact E-mail
Richard Levitt	Project Manager	<a href="mailto:richardlevitt@cs.com">richardlevitt@cs.com</a>
Steve Manchester	Construction Superintendent	<a href="mailto:sjm1@localaccess.com">sjm1@localaccess.com</a>
Bob Christensen	Environmental Compliance	<a href="mailto:bob@citterweb.org">bob@citterweb.org</a>
Agency Personnel	Agency	Contact E-mail
Ron Wright	FERC	<a href="mailto:ron.wright@ferc.gov">ron.wright@ferc.gov</a>
Jeffrey Esterle	FERC	<a href="mailto:jeffrey.esterle@ferc.gov">jeffrey.esterle@ferc.gov</a>
Jim Ferguson	ADF&G	<a href="mailto:jim_ferguson@fishgame.state.ak.us">jim_ferguson@fishgame.state.ak.us</a>
Sean Johnson	ADF&G	<a href="mailto:shawn_johnson@fishgame.state.ak.us">shawn_johnson@fishgame.state.ak.us</a>
Doug Jenkins	USDARUS	<a href="mailto:doug.jenkins@wdc.usda.gov">doug.jenkins@wdc.usda.gov</a>
Richard Enriquez	USFWS	<a href="mailto:richard_enriquez@fws.gov">richard_enriquez@fws.gov</a>
Tomie Lee	NPS	<a href="mailto:tomie_lee@nps.gov">tomie_lee@nps.gov</a>
Jackie Timothy	DNR	<a href="mailto:jackie_timothy@dnr.state.ak.us">jackie_timothy@dnr.state.ak.us</a>
Brady Scott	DNR	<a href="mailto:brady_scott@dnr.state.ak.us">brady_scott@dnr.state.ak.us</a>
Joe Donahue	DNR	<a href="mailto:joe_donohue@dnr.state.ak.us">joe_donohue@dnr.state.ak.us</a>
Kathy Prentki	Denali Commission	<a href="mailto:KPrentki@denali.gov">KPrentki@denali.gov</a>

Dear Mr. Regan,

Please find enclosed the Monthly Construction Report for the Falls Creek Hydroelectric Project, FERC # P-11659.

Gustavus Electric Company (GEC), as the licensee for the above project, submits this report.

Sincerely,  
Richard Levitt  
GEC President

**Falls Creek Hydroelectric Project (P-11659)**  
**MONTHLY CONSTRUCTION REPORT TO FERC**  
**February 2007**

**1) Progress of Work**

Little work was done this month due to continuing winter weather. Some work was done on most days this month, but with a reduced force of 1 to 3 workers.

**2) Status of Construction**

The month started by backhauling muck and clay from the parking area at the end of the intake road, and benching and hauling away the slope above this area to reduce the possibility of slides into this area. Where rock was encountered at the back side of the parking lot area, it was drilled and shot on February 15.

The rock pit in the Blueberry Hill area was drilled during the last week of the month and will be shot early in March. This rock will be for future penstock cover and for rip rap.

Work on digging the final grade of the penstock trench started on the intake road, but was soon halted due to frozen ground. The material is shot rock, but there was just enough muck mixed in to cement the rock in places. The gravel pit is also frozen and covered in deep snow, so bedding and backfill for the pipe are also not available until spring.

A warm spell arrived in mid month, with temperatures in the high 30s and wind. This thawed the lower elevations near the powerhouse sufficiently that we thought we could do the geotechnical work required to finish the steel penstock plans. Work then concentrated on clearing the steel penstock alignment in advance of the anticipated geotech work. Our consultant civil engineer, Larry Coupe of Alaska Power & Telephone arrived in Juneau on Feb. 21 at the start of a big snow storm. The geotech consultant, Phil Duoos of Redman WA, went to the Seattle airport, found they were not flying to Juneau and turned around and went home. Mr. Coupe made it to Gustavus the next day the 22nd. The temperatures turned to single digits, the ground froze and the window of opportunity was lost to do the geotech work. At the advice of Mr. Coupe, we will dig test pits along the steel alignment and gather what information is possible using that method.

Work is nearing completion on revisions to the Final Environmental Design Plan regarding the October



*Drilling at the Intake site.*



*Drilling at Blueberry Hill.*



*Ditch preparation for the HDPE pipe began in February. This work was stopped by frozen ground.*



slides, and should be submitted to FERC soon. See the environmental section for further detail.

### 3) Construction Difficulties

Weather was cold and snowy for part of the month, and windy with rain for part of the month. While this hampered construction, it is not unexpected this time of year.

### 5) Critical Events and Dates

There were no critical events this month.

### 8) Sources of Major Construction Material

No construction material was used this month.

### 11) Photographs

Ten photo vantage points have been established throughout the project area. Very little change occurred at photo points this month.

### 12) Environmental Compliance Issues

Monitoring of turbidity was performed sporadically during the month of February. For about half of the month the creek was either completely frozen over or work was not being done near the creek so measurements were not taken. Samples taken were all well below the maximum NTUs allowed.

Drilling at the intake area was successful and created no slides or sedimentation of the creek.

Benching and sloping work continued along much of the intake service road in order to reduce the rate at which slopes above the road slough and slide onto the roads and ditches.

The clearing width from the gravel pit to the powerhouse site was increased from ~60 feet to ~150 feet. Approximately 20 potential murrelet trees were removed in this effort. A Record of Concern was submitted to the project manager because the ECM wanted a documented explanation for why the murrelet trees were taken given that they had been



*Successful shot at the Intake site.*



*View of the expanded clearing width just down from the gravel pit. Note the spoils berm along the forest edge (at left) intended to protect the pipe from falling trees.*



*Another view of the expanded clearing width. Trees removed from here were flagged as murrelet leave trees in April of 2006.*



identified as leave trees several months earlier and because there is nothing in any of the plans that describes a situation in which a 150 foot clearing width would be necessary. This report was submitted to FERC and other relevant agencies, including a Record of Response from the project manager, at the end of the month. Please see this document for additional details (available at [www.gustavuselectric.com](http://www.gustavuselectric.com)).

Stripping of topsoil for the steel penstock alignment has emphasized the need for fairly aggressive sediment and erosion control measures to be in place by the spring thaw. This was also covered in the February 19th Record of Concern.

Work on the Final Tailrace Design continued throughout the month including field data collection and consultation with Herrera Environmental Consultants. A follow-up meeting was provided to intervening agencies on February 26th 2007 to allow for additional input on the final design plan. During this meeting there was general consensus that the revised plan submitted on March 1st is a better option than the currently approved design. Please see the "Proposed Modification of the Final Environmental Design: Location of the Tailrace including restoration and Mitigation" plan (available at [www.gustavuselectric.com](http://www.gustavuselectric.com)).

### 13) Wildlife Activity

Wildlife activity was generally low during February with just a few sets of Marten tracks seen. Trapping (by Gustavus resident) in the area was successful in the taking of marten, wolverine and wolf.

### 14) Biotic Monitoring

Observations for the frazzle ice model were made during the last week of the month during the beginning of a prolonged cold snap.

***The following sections are not yet applicable to the date of this report:***

4) Contract Status

6) Reservoir Filling

7) Foundations

9) Materials Testing and Results

10) Instrumentation

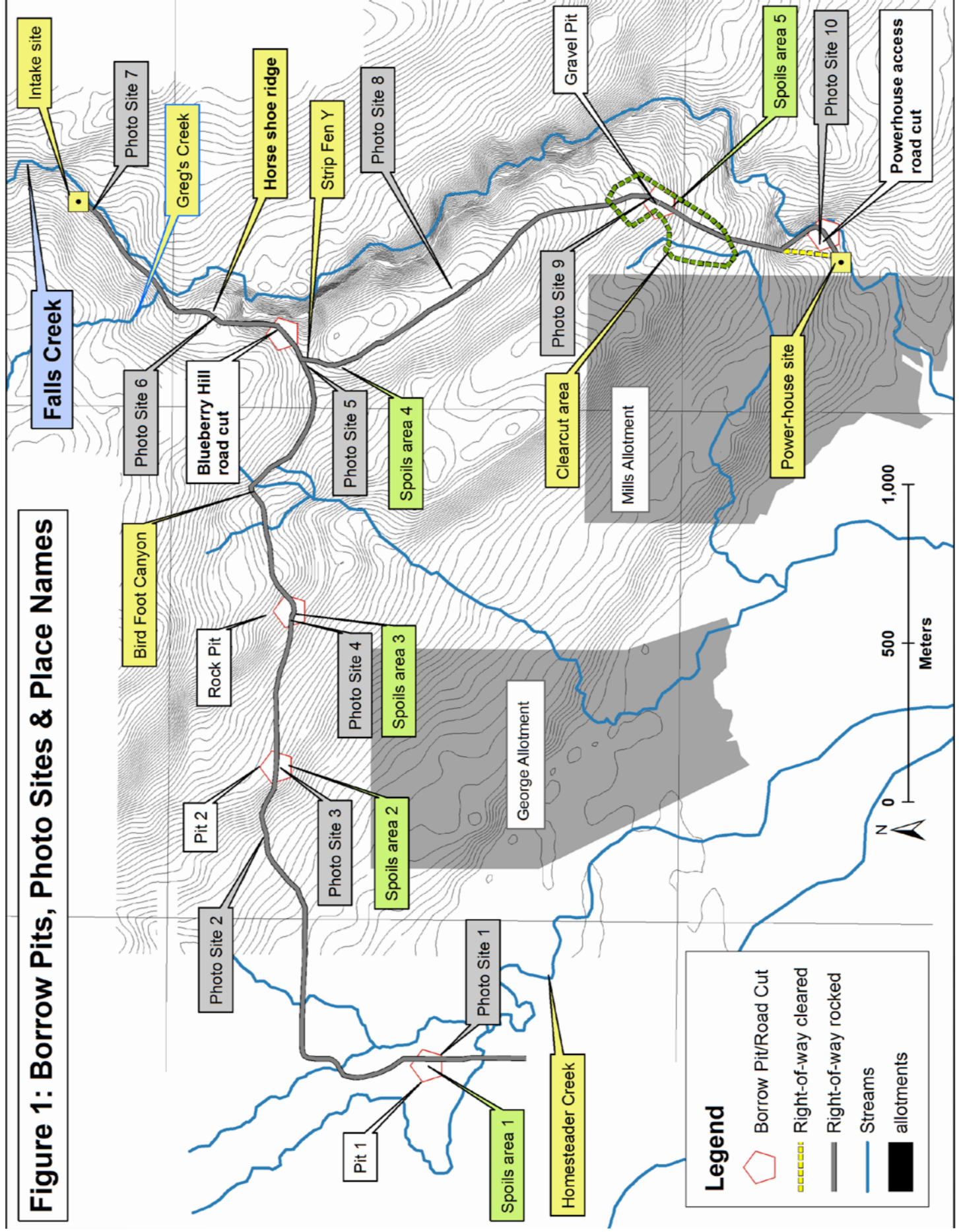


*Looking down toward the powerhouse access road. The stripped section of the hill was cleared to reduce the likelihood of mass wasting and to prepare the ground for eventual penstock anchoring..*



*Sediment running down hill from work on the approach to the Powerhouse. This area will require fairly aggressive sediment and erosion control measures to avoid sedimentation of Falls Creek.*

**Figure 1: Borrow Pits, Photo Sites & Place Names**





APPENDIX 1: FEBRUARY 2007 PHOTOS FROM VANTAGE POINTS



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05\_photo\_site.jpg



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09\_photo\_site.jpg



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Current report photo (10). Photo above indicating photo 10 location.